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## **AMENDMENTS TO THE CLAIMS:**

Please add claims 22-32 and amend the claims as follows:

- 1-8. (Canceled)
- 9. (Currently Amended) A method of manufacturing a steel for use in a high strength pinion shaft comprising:

providing a steel comprising:

0.45wt% - 0.55wt% C;

0.21wt%-0.45wt% Si

0.50wt% - 1.20wt% Mn;

0.025wt% or less P;

0.025wt% or less S;

0.15wt% - 0.25wt% Mo;

0.0005wt% - 0.005wt% B;

0.005wt% 0.10wt% Ti;

0.015wt% or less N; and

a balance comprising Fe and impurities

hot rolling said steel at a temperature of 700°C to 850°C under a draft ratio at an area reduction of 10% or more to obtain a steel comprising a 3-phase texture of ferrite + pearlite + bainite; and

high frequency hardening the steel,

wherein the steel is devoid of Cr, Cu, Ni and Al,

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wherein a hardness of said steel before the high frequency <u>hardening</u> and after hot rolling comprises a range of 24 HRC to 30 HRC,

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wherein a surface hardness of said steel after said high frequency hardening comprises 650 HV or more, and

wherein a pearlite block size of the steel is 100  $\mu m$  or less as a circle equivalent diameter.

- 10. (Canceled)
- 11. (Currently Amended) A method of manufacturing a steel for use in a high strength pinion shaft according to claim 9, further comprising wherein the steel comprises one or more of 0.20wt% or less Nb, 0.20wt% or less Ta, and 0.10wt% or less Zr instead of a portion of said Fe.
- 12-16. (Canceled)
- 17. (Previously Presented) A method of manufacturing a steel for use in a high strength pinion shaft according to claim 9, wherein said steel is fabricated or worked under a temperature in a range of 700°C to 850°C.
- 18-21. (Canceled)
- 22. (New) A method of manufacturing a steel for use in a high strength pinion shaft

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according to claim 9, wherein the steel has a circle equivalent diameter (Ceq) which satisfies  $0.80 \le \text{Ceq} \le 0.95$ , where Ceq = C +  $0.07 \times \text{Si} + 0.16 \times \text{Mn} + 0.20 \times \text{Cr} + 0.72 \times \text{Mo}$  before high

frequency hardening.

23. (New) A method of manufacturing a steel for use in a high strength pinion shaft

according to claim 9, wherein a ferrite area ratio is 40% or less before high frequency

hardening.

24. (New) A method of manufacturing a steel for use in a high strength pinion shaft

according to claim 9, wherein an old austenite crystal grain size in a hardened layer is 8 or

more in view of grain size number.

25. (New) A method of manufacturing a steel for use in a high strength pinion shaft

comprising:

providing a steel;

hot rolling the steel at a temperature of 700°C to 850°C under a draft ratio at an area

reduction of 10%; and

high frequency hardening the steel,

wherein a hardness of said steel before the high frequency hardening and after hot

rolling comprises a range of 24 HRC to 30 HRC.

26. (New) The method according to claim 25, wherein a pearlite block size of the steel is

100 µm or less as a circle equivalent diameter.

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27. (New) The method according to claim 25, wherein the steel comprises:

0.45wt% - 0.55wt% C;

0.21wt%-0.45wt% Si

0.50wt% - 1.20wt% Mn; and

0.15wt% - 0.25wt% Mo.

- 28. (New) The method according to claim 27, wherein the steel has a circle equivalent diameter (Ceq) which satisfies  $0.80 \le \text{Ceq} \le 0.95$ , where  $\text{Ceq} = \text{C} + 0.07 \times \text{Si} + 0.16 \times \text{Mn} + 0.20 \times \text{Cr} + 0.72 \times \text{Mo}$  before high frequency hardening.
- 29. (New) The method according to claim 25, wherein a ferrite area ratio is 40% or less before high frequency hardening.
- 30. (New) The method according to claim 25, wherein an old austenite crystal grain size in a hardened layer is 8 or more in view of grain size number.
- 31. (New) The method according to claim 25, wherein the steel is devoid of Cr, Cu, Ni and Al.
- 32. (New) The method according to claim 25, wherein a surface hardness of said steel after said high frequency hardening comprises 650 HV or more.